

Remarks

Reconsideration of this Application is respectfully requested. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103(a)

The Examiner has rejected claims 9, 10, 11, 12, 13, 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Isenring *et al.*, (U.S. Patent No. 6,407,100; "the '100 patent"), Heinemann *et al.*, (U.S. Patent No. 6,103,717; "the '717 patent"), and Jautelat *et al.* (U.S. Patent No. 5,789,430; "the '430 patent"). At page 3 of the Office Action, the Examiner states that: the '100 patent teaches trifloxystrobin as a fungicide; the '717 patent teaches fl[u]oxastrobin as an antimicrobial agent; and the '430 patent teaches prothioconazole as microbi[o]cides. Citing *In re Kerkhoven*, 626 F.2d 846, the Examiner reasons that it would have been *prima facie* obvious to combine two *or more* compositions, each of which is taught in the art, to form a new composition that is to be used for the same purpose.

Applicant respectfully traverses this rejection.

I. Prima Facie Obviousness Has Not Been Established

The presently claimed composition requires three components: prothioconazole, trifloxystrobin and fluoxastrobin. The holding in the *Kerkhoven* case cited by the Examiner relates to combining only two compositions. The Federal Circuit stated, "it is *prima facie* obvious to combine *two* compositions... ." *Id.* at 850 (citing *In re Susi*, 440

F.2d 442) (emphasis added). The Applicant respectfully submits that for clarity, it is the Examiner, who in view of the holding of the cited case, *Kerkhoven*, is extending the reasoning therein to combining more than two compositions.

a. No Motivation to Combine References

In this light, the Applicant respectfully submits that the teachings of the cited art do not provide the motivation required to combine the three particular components the Applicant has selected. Obviousness can not be established by combining references absent some teaching, suggestion or incentive supporting the combination. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed.Cir. 1990) (*quoting, Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed.Cir.1986)). In addition, when it is necessary to select elements of various teachings, the query is whether there is any suggestion or motivation in the prior art *to make the selection made by the Applicant*. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed.Cir.1985) (emphasis added).

b. No Explicit Motivation

The following is a summary of the explicit teachings of the patents cited regarding combining the respective active compound with other actives.

1. The '100 patent

The '100 patent states that its active compounds can,

also comprise other active compounds, for example other types of fungicidal compositions, insecticidal and acaricidal compositions, bactericides, plant growth regulators and fertilisers. Such combination compositions are suitable for broadening the spectrum of action or for specifically influencing plant growth.

Column 8, lines 46-53.

Thus, it follows from the '100 patent's teachings that the motivation to combine this patent's compounds with compounds such as those disclosed in either of the other two cited patents would be to broaden the spectrum of action or influence plant growth. *Id.* The patent does not appear to disclose any particular combination of actives. Further, the patent does not specifically refer to combining three actives.

2. *The '717 patent*

The '717 patent states that its active compounds can,

also be used as a mixture with known fungicides, bactericides, aracicides, nematocides or insecticides, for example to widen the spectrum of action or to prevent build-up of resistance. In many cases, synergistic effects are obtained, i.e. the activity of the mixture is greater than the activity of the individual components.

Column 12, lines 55-61.

Thus, it follows from the '717 patent's teachings that the motivation to combine this patent's compounds with compounds such as those disclosed in either of the other two cited patents would be to widen the spectrum of action or prevent build-up of resistance. *Id.* A general synergistic effect is also contemplated. *Id.* The patent does not appear to disclose any particular combination of actives. However, the patent does state that its actives, which include fluoxastrobin as a species, could be combined with a laundry list of suitable examples, but it does not appear that the list includes either trifloxystrobin or prothioconazole. Further, the patent does not specifically refer to combining three actives.

3. *The '430 patent*

At column 32, lines 24 through 31, the '430 patent recites the same text as that quoted above for the '717 patent. Thus, it follows from the '430 patent's teachings that the motivation to combine this patent's compounds with compounds such as those disclosed in

either of the other two cited patents would be to widen the spectrum of action or prevent build-up of resistance, and a general synergistic effect is also contemplated. *Id.* The patent does not appear to disclose any particular combination of actives. However, the patent does state that its actives, which include prothioconazole as a species, could be combined with a laundry list of suitable examples, but it does not appear that the list includes either trifloxystrobin or fluoxastrobin. Further, the patent does not specifically refer to combining three actives.

There is no teaching or suggestion in any of the cited patents to prepare a three component combination comprising prothioconazole, trifloxystrobin and fluoxastrobin. As shown above, what is suggested by the patents is that one could combine the respective active with another active for specific purposes, *e.g.*, to inhibit resistance, widen the spectrum or to specifically influence plant growth. *See* quotes above. However, even in the case of the '717 and '430 patents where a synergistic effect is contemplated, each patent's laundry list of substances do not contain the particular actives that the Applicant has selected. Moreover, neither the cited art nor the state of the art can predict the synergism of a particular compound combination.

Consequently, the requirement that a suggestion or motivation be found in the prior art to make the selection made by the Applicant has not been satisfied. At best, the patents in combination establish in *general terms* that it may be obvious to try various combinations. However, "obvious to try" is not the standard for obviousness. *In re O'Farrell*, 853 F.2d 894, 903.

c. *No Implicit Motivation*

Applicant reiterates that there is nothing in any of the cited patents (including the general statement that active compounds can be combined synergistically), the knowledge in the art and the nature of the problem to be solved that would suggest the Applicant's three compound combination of prothioconazole, trifloxystrobin and fluoxastrobin. The fact that active compounds can be combined is not an inventive aspect. Further, this fact is not an implied motivation to combine the three particular compounds Applicant selected. The fact that combinations of known chemicals can sometimes yield synergistic effects for their known purposes is not an inventive aspect. Further, this fact is not an implied motivation to combine the three particular compounds the Applicant selected.

For the reasons above, there is no motivation either explicit or implicit in the art cited or the art in general to arrive at the Applicant's three compound combination. Thus, the Examiner has failed to establish a *prima facie* case of obviousness. Applicant therefore submits that the presently claimed compound combination is not obvious and requests that the Examiner allow claim 9. Further, because claims 10, 11, 12, 13, 14 and 15 incorporate all the limitations of claim 9, these claims are also not obvious and should be allowed.

II. *Synergistic Effects*

The Examiner has asked how the data where application rates of 100 g/ha for each component relate to the data where the application rates are 25, 50 and 25 g/ha for trifloxystrobin, prothioconazole and fluoxastrobin respectively. The Examiner also asks how this data shows a synergistic effect and not an additive effect.

The data in Table 1 on page 11 in the original specification show that when applied at a rate of 100 g/ha, trifloxystrobin's efficacy is 56%, prothioconazole's efficacy is 56% and fluoxastrobin's efficacy is 67%. Absent a synergistic effect, it would not be expected that a combination of these three actives would ever surpass the percentage of efficacy attributable to the most active individual component (fluoxastrobin, 67%). The individual application rates of 100 g/ha relate to the rates in the mixture by way of comparison to the mixture's efficacy where the rate of fluoxastrobin has been reduced from 100 g/ha to 25 g/ha. Because fluoxastrobin's rate has been cut and then effectively made up by adding back compounds with lower efficacy, any additive effect, at best, would not produce an efficacy above that of fluoxastrobin, the most active component. The data in Table 1 show that the three component combination increases efficacy above that of fluoxastrobin by 11%. Thus, the efficacy of the compound combination trifloxystrobin, prothioconazole and fluoxastrobin is not the result of an additive effect.


Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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